

ATTACHMENT A OF REISSUE APPLICATION DECLARATION  
BY ASSIGNEE (FORM PTO/SB52)

... Claim 1 is arguably subject to an incorrect interpretation that the "packaged integrated circuit" could be mounted on a substrate or the like with the "back surface" of the die facing towards the substrate so that the "protective film" would be disposed intermediate the "die" and the substrate.

Prior art exists disclosing a die mounted on the substrate by way of some adhering agent, such as an adhesive, where the adhering agent could possibly be considered to be the claimed "protective film". See, for example, USPN<sup>o</sup>. 5,504,374 that issued on April 2, 1996 and entitled "Microcircuit Package Assembly Utilizing Large Size Die and Low Temperature Curing Organic Die Attach Material". This prior art patent discloses a die 14 mounted on a substrate 12 by way of an adhesive die attach 16. Thus, such prior art places the validity of Claim 1 in some doubt when the claim is interpreted in the manner described above.

Claim 1 is being amended by way of the enclosed Amendment referenced above to recite that the "first surface of the die" includes a "plurality of electrical contact bumps" such as bumps 106 depicted in Fig. 2 of the subject reissue application. Prior art packaged integrated circuits having "contact bumps" are mounted with the bumps adjacent a supporting substrate on a substrate or the like with the "contact bumps" facing the substrate so that the claimed "protective film" would not be disposed between the "die" and the substrate. Prior art flip-chip circuits utilize contact bumps such as disclosed in USPN<sup>o</sup>. 5,311,059 issued on May 10, 1994 and entitled "Backplane Grounding for Flip-Chip Integrated Circuit". This patent discloses the use of a metallic coating 14 on what could be considered to be the "back surface" of the chip 10 which functions as a ground

plane for the chip. However, Claim 1 recites that the thickness of the "protective layer" is between 1.5 and 5 mils, and there is no teaching regarding the thickness of the metallic coating 14 of this prior art patent.

New Claims 7 – 10 have been added by way of the Amendment referenced above. These claims all depend from Claim 1 and thus further limit the claim.

New Claim 11 has been added which is also directed to a packaged integrated circuit. A "protective film" is included which again is disposed on a "back surface" of a "die". The "protective film" includes "laser identification markings". The prior art noted above does not disclose an adhering agent or the like which could be construed as a "protective film" and which further includes "laser identification markings" as recited in new Claim 11. New Claims 12 – 15 depend, either directly or indirectly, from independent Claim 11 and thus further limit the claim.

ATTACHMENT B OF REISSUE APPLICATION DECLARATION  
BY ASSIGNEE (FORM PTO/SB52)

Power Of Attorney, continued:

Name(s):	Registration Number:
Coleman F. Reif	38,593
Allen R. Tremain	40,207
Andrew S. Viger	28,552
Peter Y. Wang	40,452
Philip A. Girard	28,848
Alfred A. Equitz	30,922

10022001-134704

ATTACHMENT C OF REISSUE APPLICATION DECLARATION  
BY ASSIGNEE (FORM PTO/SB52)

Patentees, continued:

Patentee: Nikhil Vishwanath Kelkar                      Citizenship: India  
Residence/Mailing Address: 6385 Lillian Way, San Jose, CA 95120

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**REISSUE APPLICATION DECLARATION BY THE ASSIGNEE**Docket Number (optional)  
NSC1-G9900

I hereby declare that:

My residence and mailing address and citizenship are stated below next to my name.

I am authorized to act on behalf of the following assignee: National Semiconductor Corporationand the title of my position with said assignee is: Member of the Technical Staff of the  
Intellectual Property Group

The entire title to the patent identified below is vested in said assignee.

Name of Patentee(s):

Pai-Hsiang Kao, et al.

Patent Number

6,023,094

Date of Patent Issued

February 8, 2000

Title of Invention

Semiconductor Wafer Having A Bottom Surface Protective Coating

I believe said patentee(s) to be the original, first and sole/joint inventor(s) of the subject matter which is described and claimed in said patent, for which a reissue patent is sought on the invention entitled Semiconductor Wafer Having A Bottom Surface Protective Coating

the specification of which

☒ is attached hereto, together with the accompanying Preliminary Amendment.☐ was filed on \_\_\_\_\_ as reissue application number \_\_\_\_\_ / \_\_\_\_\_  
and was amended on \_\_\_\_\_  
(If applicable)

I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I verily believe the original patent to be wholly or partly inoperative or invalid, for the reasons described below. (Check all boxes that apply.)

- ☐ by reason of a defective specification or drawing.
- ☒ by reason of the patentee claiming more or less than he had the right to claim in the patent.
- ☐ by reason of other errors.

At least one error upon which reissue is based is described as follows:

Claim 1 of the original patent recites that the claimed "packaged integrated circuit" includes a "protective film adhered directly to a back surface of ... [a] die"... (See Attachment A to Reissue Application Declaration)

[Attach additional sheets, if needed.]


All errors corrected in this reissue application arose without any deceptive intention on the part of the applicant.

[Page 1 of 2]

Burden Hour Statement: This form is estimated to take 0.5 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

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<b>REISSUE APPLICATION DECLARATION BY THE ASSIGNEE</b>				Docket Number (Optional) NSC1-G9900	
I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the United States Patent and Trademark Office connected therewith.					
Name(s)		Registration Number			
Christopher J. Byrne		32,204			
Eugene C. Conser		39,149			
John Maxim		34,688			
(Continued on Attachment B to Reissue Application Declaration)					
Correspondence Address: Direct all communications about the application to:					
<input type="checkbox"/> Customer Number		<div style="border: 1px solid black; width: 150px; height: 20px;"></div>		<div style="border: 1px solid black; padding: 5px; text-align: center;">           Place Customer Number Bar Code Label Here         </div>	
OR					
<input checked="" type="checkbox"/> Firm or Individual Name		Philip A. Girard c/o Girard & Equitz LLP			
Address		400 Montgomery Street, Suite 1110			
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City		San Francisco	State	CA	Zip 94104
Country		United States			
Telephone		(415) 433-2250	Fax	(415) 433-2255	
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine and imprisonment, or both, under 18 U.S.C. 1001, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this declaration is directed.					
Full name of person signing (given name, family name) Allen R. Tremain					
Signature 			Date November 30, 2001		
Address of Assignee 2900 Semiconductor Drive, Santa Clara, CA 95052					
Patentee Pai-Hsiang Kao			Citizenship Taiwan		
Residence/Mailing Address 19445 Dorchester Dr., Saratoga, CA 95070					
Patentee William Jeffrey Schaefer			Citizenship United States		
Residence/Mailing Address 7589 Silvertree Ln., Dublin, CA 94568					
<input checked="" type="checkbox"/> Additional Patentees are named on separately numbered sheets attached hereto. (See					

10022633-121701

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of

PAI-HSIANG KAO, et al.

Patent No. 6,023,094

Issued: February 8, 2000

For: **SEMICONDUCTOR WAFER HAVING  
A BOTTOM SURFACE PROTECTIVE  
COATING**

**CONSENT BY ASSIGNEE TO  
FILING OF REISSUE  
APPLICATION AND OFFER TO  
SURRENDER ORIGINAL  
PATENT**

400 Montgomery Street, Suite 1110  
San Francisco, CA 94104  
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Box Reissue  
Commissioner for Patents  
Washington, D.C. 20231


Sir:

National Semiconductor Corporation, assignee of U.S. Patent No. 6,023,094 by assignment records at reel 8951, frame 0774 on January 14, 1998, consents to the filing of the present application for the reissue of U.S. Patent No. 6,023,094.

Further, National Semiconductor Corporation hereby offers to surrender U.S. Patent No. 6,023,094 pursuant to 37 CFR § 1.178(a).

The undersigned (whose title is supplied below) is authorized to act on behalf of National Semiconductor Corporation in this matter.

Dated: 12/11/01

By: 

Name: Christopher J. Byrne

Title: Director of Intellectual Property and Technology Licensing

Attorney Docket No. NSC1-G9900

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